

AMERICAN FARMER

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AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY

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We welcome our correspondent "Montgomery" to our columns, and hope he will continue his essays. The lights of agriculture always shine brightest when they proceed from the minds of practical men, and we trust the good example he has set will be followed by other farmers, not only in Maryland but in all the sister states.

LEIBIG'S ORGANIC CHEMISTRY, &c.

"Leibig's Organic Chemistry of Agriculture and Physiology. Second American edition, with an introduction and notes, by Prof. Webster, of Harvard University."

We have received a copy of the above work from the Messrs. Cushing & Brothers, of this city, and without intending to review it, may speak of its merits, as being the most valuable book ever written upon the interesting subjects of which it treats. As an aid to the farmer and planter, it has no compeer, and so indispensable do we consider it to the success of the agriculturist, that we would advise every one to procure a copy without further delay. Upon the subject of Physiology, the use and application of manures, its reasonings are so obviously correct, and deductions so simple and convincing, that the reader wonders, in perusing them, why they had not previously presented themselves to his mind. Without affecting to be so, Professor Leibig is at once learned and philosophical, and opens the whole mystery of vegetable growth, and its dependence upon certain combinations of earth and mineral salts, with a force and beauty no less interesting than instructive. Upon the subject of the benefits of lime, he is peculiarly happy; and it is but doing him simple justice to say, that his theory of the operation of gypsum, is the only one we have ever seen, which appeared to us to be based upon the true principles of affinity and assimilation, and to account for the wonderful effects produced by that mineral, applied as it is, in such minute quantities.

From the character of Prof. Webster's introduction and notes, we consider the American edition infinitely more valuable than the English, and that the book, through his learning, and well directed labor, has been very happily adapted to the wants of the husbandmen of our country.

When we took pen in hand, it was not our intention to have written but a few lines, but we cannot conclude without conjuring every agriculturist, who wishes to be enlightened upon matters intimately connected with his calling—who desires to drink in wisdom from a limpid fount—to buy the book.

We will from time to time make liberal draughts upon this work for the benefit of those who may not have it within their reach.

REDUCTION OF BONES.

To the Editor of the American Farmer.

Sir—Will you or some of your readers, be pleased to state, in what mode I can reduce Bones to a powder, so as to use them as a top dressing? The objection to grinding, is the expense of the mill; to burning, the destruction, I suppose, of their enriching quality; and to breaking with hammers, the time and labor. Is there no chemical process (unexpensive) by which they can be decomposed? Would the effect be produced by burying them in ashes from the soap-house, or in lime, and within what time?

We publish the above from a gentleman in Georgetown, D. C. with a view of eliciting the information sought for by our correspondent, from some one who may be able to give it. We are not acquainted with any chemical process by which bones can be reduced to powder, or decomposed. But we apprehend that the expensiveness of breaking them with hammers, would not be so great as our correspondent apprehends, and we are now making a gathering of them, which we intend reducing by this means, should we not in the meantime discover a more economical mode; the purchase of a mill for the sole use of a private individual, would be found too expensive. In a recent visit to Mr. Trego's establishment, south side of the Basin, we noticed some machinery attached to his plaster mill, for crushing bones, but they were afterwards required to be run through another mill to reduce them still finer.—We should suppose Mr. Trego could do a profitable business in this line, and render an efficient service to agriculture. It is not necessary, however, we conceive, that the bones should be reduced to powder, to render them effectively meliorating: on the contrary, when broken into pieces of an inch, their effect, though not so immediate, would be more lasting. But whether pulverized to powder, or broken into small pieces, their efficacy would be greatly promoted, by being mixed with lime, or ashes, before being used, and permitted to remain in bulk for two or three weeks. With either of these bodies, they would form a saponaceous compound of great value.

Burning the bones would, as our correspondent supposes, deprive them of much of their power of usefulness, as it would abstract from them all the oily principles they possess, and leave the phosphates of lime and magnesia as the residuum.

We particularly invite the attention of our readers to the third essay "On the importance of Lime to Soils," by Darius Lapham, Civil Engineer. Those who may have read the two preceding ones, will need no stimulant from us to induce them to read the present; at all events we are certain they will thank us for translating it to our columns at the earliest possible period. Mr. Lapham has, in the course of his essays, treated this subject with a master hand, and infused into them, in a familiar way, such lessons of sound practical wisdom as cannot fail to be of immense benefit to those for whose service they are intended.

Massachusetts Agricultural Conversations—We give place to-day to the third Agricultural Conversation,

held by the members of the Massachusetts Legislature, and other friends of the cause. The subject discussed is the "Cultivation of the Potato," and will be found to contain many interesting facts. In the culture of this root, the eastern farmers have always been more successful than those of any other section of our country, but we think after all, the great mystery of their success consists in attention. With them it is an important crop, and being so, they use the proper means to ensure a profitable yield.

Premium Crops.—We publish in another column from the report of the Massachusetts Agricultural Society, the statements of the applicants for premium crops, believing that facts of the kind have a good effect. In one instance it will be seen that a premium was awarded for a crop of upwards of 105 bushels of corn to the acre; and that in another for above 40 bushels of rye to the acre. The corn crop, though not the largest on record, is still a large one. The rye crop, considering the fatality which, for years, has attended its cultivation, is an extraordinary one.

A singularly fruitful Soil.—The Encyclopedia Britannica describes a soil near Sandside, in the county of Caithness, of most singular fertility. The writer says that

"There is a pretty extensive plain on the sea-coast, endowed with a most singular degree of fertility. In all seasons it produces a most luxuriant herbage, although it never got any manure since the creation, and has been from time immemorial subjected to the following course of crops.

1. Bear after once ploughing from grass, usually a good crop.
2. Bear, after once ploughing, a better crop than the first.
3. Bear, after once ploughing, a crop equal to the first.
- 4, 5 and 6. Natural grass, as close and rich as could be imagined, might be cut if the possessor so inclined, and would yield an extraordinary crop of hay each year: after this the same course of cropping is renewed.

The soil that admits of this singular mode of farming, appears to be a pure incoherent sand, destitute of the smallest particle of vegetable mould; but upon examination it is found to consist almost entirely of broken shells; the fine mould here bears such a small proportion to the calcareous matter, as to be scarcely perceptible, and yet it forms the most fertile soil that I ever met with."

Haywood, an ingenious theoretical writer, in commenting upon the foregoing, says:

"The writer of this article in the Encyclopedia accounts for this fertility by supposing that from its vicinity to the sea, it derives its prolific powers from the salt water; but by adverting to the principles I have laid down, a much more probable arrangement and combination may be suggested. In the first place, we may suppose that the mechanical texture of the soil and subsoil is such, and so situated, as not only to obtain a supply of fresh water, but to admit of, and facilitate, a constantly ascending and descending motion of such water; and that its chemical constitution is such as to facilitate the decomposition and reduction of the roots, leaves and stalks of the vegetables, regularly deprived of life, to a soluble state, without the process of putrefaction, and its consequent loss in carbonated hydrogen gas, &c."

Whether his theory be consonant to reason we will not

undertake to say, but it is most certain that the fertility of the soil described exceeds any thing we ever recollect to have read of.

AN ESSAY ON THE IMPORTANCE OF LIME IN SOILS.

By Darius Lapham, Civil Engineer.

Chemical analysis informs us that vegetable tissue, or woody fibre, consists of Carbon, oxygen, hydrogen and nitrogen, together with earthy, saline, and metallic basis. Plants assimilate these various substances by means of their vascular organization. The leaves absorb from the atmosphere, oxygen, carbonic acid and water; and the roots extract from the soil, in a liquid or gaseous state, whatever may be contained beneath the surface of the earth, in a condition suitable to be absorbed; and thence by some unknown process of vitality, the substances are assimilated and distributed throughout the plant, and form by successive accumulations a new vegetable structure. In addition to the proper food of plants, the different species of the vegetable kingdom require various inorganic substances for their full and perfect development. The silica found in the stems of the cereal and graminous plants, and the phosphate and carbonate of lime, which is essential to the perfection of all kinds of grain, are familiar examples. Soils, therefore, must be capable of supplying to the roots of plants, not only the substances which afford their proper food, but likewise the several inorganic substances which the particular species of plants under cultivation may require; and it is not only necessary that the soil should contain in itself all the substances which may be required for the production of any given vegetable, but these substances must be present and exist in such a state, that they may be capable of being absorbed and assimilated by the roots of plants; for instance, silica may be abundant in the soil, but unless some alkali be present to dissolve it, it cannot be absorbed or assimilated by the plants. So also with humus; if it be in an insoluble state, the plants cannot absorb it, and appropriate its component parts to the formation of a new plant; but so soon as air, moisture, or an alkali comes in contact with the humus, it is rapidly dissolved and assumes a form in which the roots are enabled to absorb and appropriate it. So it is with other substances; manure cannot be absorbed by plants in its gross state, it requires to undergo a certain degree of fermentation and putrefaction before its constituents can be taken up by plants; and even then, it may be so combined with acids or other substances, as to be thereby rendered incapable of affording nourishment to plants until lime or some other alkaline substance has been applied to neutralize the acids, or change the character of the substances, so as to make them soluble, and convert them into a state proper to be absorbed by the roots of plants.

We are indebted to the Noachian deluge for a great many blessings, besides the ostensible one recorded in scripture, of purifying the world from its iniquities of mankind. To the powerful effects of this mighty rush of waters, we are chiefly indebted for the pulverization of the various rock formations, and their transportation and distribution over the whole surface of the globe, forming those soils which the geologists have termed diluvial. To this deluge we are indebted for the universal dispersion over the globe, of the various seeds of the various kinds of plants, and of the diffusion and incorporation of humus throughout all the soils which cover the surface of the earth.

In the early period of the earth's existence, and during the two thousand years previous to Noah's flood, vegetation of all kinds appears to have been of rapid growth and of extraordinary luxuriance. If it be admitted that humus was an original created substance, and was incorporated into the soil that was first appropriated to the production of plants; this extraordinary growth of the vegetable kingdom may be easily accounted for, by considering that the original soil was perfect in its composition and constitution, as it came from the hands of the Creator. During the period of time, from the creation of the vegetable kingdom, to the general deluge, a vast accumulation of organic matter in the form of humus, must have covered the surface of the soil; and by means of that general catastrophe, which changed the features of the whole earth, this vast accumulation of vegetable substances in the various stages of decay and decomposition, was blended and incorporated, and transported with the rolling sands, clays and other earths, and when the waters subsided, a soil was distributed over the surface of the earth, contain-

ing a large amount of vegetable matter in the form of humus, and undecayed wood, and the seeds of the various tribes of plants which had previously existed. These substances were thus laid up as it were in a store house for future use; and whenever we excavate into this diluvial stratum, where it has not been disturbed, and expose new surfaces to the air and moisture, a new soil is soon formed, capable of sustaining vegetation; and what is still more remarkable, new species of plants will spontaneously arise out of this new soil, entirely different from those which have been for ages growing upon the surface of this same stratum of earth. Whenever forests are cleared, and the soil left to a spontaneous growth, new species of trees and plants take the place of those previously existing. These must of course be produced from the seeds which have been preserved in the earth during many ages, and which the removal of the forest has allowed to germinate. An example of the incorporation of humus and wood in diluvial earth, may be seen at the tunnel at North Bend. Large fragments of wood, of the species of the pine tribe, are found one hundred feet below the surface, imbedded in the diluvial stratum, through which the tunnel is excavated. The conversion of the earth into soil may likewise be observed at the same place. Wherever a fissure or crack occurs from the drying and shrinking of this earth when exposed, the water will penetrate into it, and dissolve the humus contained in the earth, which changes its color and character, so as to render it capable of producing vegetation; and the roots of plants may be seen extending themselves into these fissures in search of the humus, which the air and moisture has dissolved and converted into the food of plants.

This original humus, may, however, be combined with acids, either mineral or vegetable; (according to Dr. Jackson, humus itself is composed of acids;) in which state the air and moisture will not act upon it so as to dissolve it, and in such case the application of lime, or an alkali, is necessary to neutralize the acids, and bring the humus to such a state that the atmospheric agents may dissolve it, and render it capable of becoming food for plants. This condition of the humus is indicated by the general sterility of soils, which in all other respects present a proper constitution; and by the scanty growth of acid plants, such as pine, sorrel, sourdock, &c.

This view of the origin of humus, rationally accounts for the surprising effects produced on worn out soils by the recent practice of deep subsoil ploughing. A new supply of humus is brought to the surface; and calcareous matter being almost universally found in diluvial strata, it is thrown up with the subsoil, and being incorporated with the surface soil, renovates and improves the field.

There is, however, a wide distinction to be made between the original humus, the origin of which has been traced above, and that which is produced artificially, by means of the application of fresh vegetable or animal substances. The one is already manufactured to our hand, and the production of the latter has exercised the ingenuity of scientific agriculturists for many years past. And this is the great object to be sought by practical farmers.

The best method of producing artificial humus, the material from which plants chiefly derive their food.

Calcareous earth may be applied advantageously to soils in the three different forms:

1st. In the form of calcined lime, either slaked or unslaked.

2d. In the form of carbonate of lime, either powdered limestone or shell marl, or marly clay, or in any other form in which it can be procured and incorporated with the soil. 3d. In the form of sulphate of lime, or gypsum—plaster of paris.

Dr. Dana and Professor Hitchcock recommend the use of lime on soils, and state that its action is threefold, each distinct. 1st. It is a neutralizer. Lime, either in its calcined state, or in the form of a carbonate, will combine with any acids that may exist in a soil in a free state. If the carbonate of lime is employed, the carbonic acid which it contained is set free, and becomes food for plants. 2d. It is a decomposer. Many of the metallic oxides will be decomposed by lime, and their components will form new combinations, or be absorbed by plants. But according to Dr. Dana's views of geine, the soil may contain abundant geates; that is, geic acid will combine with the earths and metals and form salts, not easily soluble, but which lime will decompose and render soluble. 3d. It is a converter. "The great use of lime is a converter, turning solid and insoluble geine, nay, I go farther, solid vegetable fibre into soluble vegetable food."

Sir H. Davy says, that when lime, whether freshly burned or slacked, is mixed with any moist fibrous vegetable matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water. By this kind of operation lime renders matter which was before comparatively inert, nutritive.

Dr. Jackson, Geological Report of Rhode Island, recommends the use of lime in combination with vegetable and animal matters in the compost heap, and depends upon its property of neutralizing the acidity of the humus of soils, after the compost has been incorporated with the soil.

Mr. Edmund Ruffin, in his Essay on Calcareous manures, gives the following as his views of the action of "carbonate of lime" in soils. "Calcareous earth" possesses the power to combine with and retain putrescent manures, (whether of an animal or vegetable origin) in the soil, and they undergo a chemical combination of such nature that the air, sun, or rain cannot separate them, and nothing but the attractive power of growing plants can effect the separation of the parts of this compound manure. And the second property of calcareous earth is the power of neutralizing acids which the soil or manures may contain. He says, page 31: The presence of acids, by preventing or retarding putrefaction, keeps the vegetable matter inert, and even hurtful on cultivated land; and the crops are still further injured by taking up the poisonous acid with their nutriment. A sufficient quantity of calcareous earth, mixed with a soil, will immediately neutralize the acid, and destroy its powers: the soil, released from its baneful influence, will be rendered capable for the first time, of exerting the fertility which it readily possessed. Calcareous earth has the further power of altering both the texture and absorbancy of the soils.

Hitherto, gypsum has been supposed to operate as a stimulant in its action upon growing plants. The discoveries of Professor Liebig have afforded an elegant solution of the action of gypsum on lands. "The carbonate of ammonia, contained in rain water, is decomposed by gypsum, and soluble sulphate of ammonia and carbonate of lime are formed; and this salt of Ammonia, possessing no volatility, is consequently retained in the soil." Both these salts, however, act upon the humus contained in the soil, and prepare it for the use of growing plants.

The cheapest and perhaps the best method of producing artificial humus, and applying it to exhausted soils, is that of turning under green crops. For this purpose, clover and buckwheat have been principally used, in consequence of these plants exhausting but little humus from the soil; and obtaining their principal nourishment from the atmosphere, up to the time of flowering. When imbedded in the soil, the vegetable matter undergoes fermentation and putrefaction in from ten to fifteen days, according to the favorable or unfavorable state of the weather. The gaseous products of the fermentation are imbibed by the soil lying over the vegetable matter, and the solid and fluid products remain in the soil, and at length if not disturbed, become incorporated and mixed with it. But should the ground be again ploughed before the decomposition has been completed, for the purpose of putting in the crop, as is the general practice, the greater part of the gaseous and fluid products of the vegetable matter becomes dissipated in the air and are lost.

To prevent this waste of vegetable matter, and also to bring it more rapidly into a state fit for the use of the growing crop; it is proposed that immediately before turning under the green crop, that fifteen to twenty bushels of fresh slaked lime be sown upon each acre, and that the crop be immediately ploughed under, and the sod laid flat by the roller. Under this a crop of wheat may be sown, or corn planted, as may best suit the convenience of the farmer to plough in his green crop in the spring or fall. The lime will produce fermentation in the vegetable matter immediately, and will absorb the carbonic acid gas, and will also combine with the vegetable matter in such manner as to retain it and prevent its waste in any other manner than by the action of the plants growing upon the soil. If clover be employed, its growth may be augmented by the use of gypsum.

If a sufficient quantity of lime has been spread upon the land, it will also neutralize any acids which the soil may contain, or which the vegetable matter thus added to it may produce. And should there be any insoluble "original" humus still remaining in the soil, the lime will convert that likewise into food for the growing crop. Such plants, also, as require lime to perfect their seeds, (and all

plants cultivated for food require it,] will be thus furnished with that essential ingredient.

In the process of ploughing in the green crop, the plough should go the depth of the roots, and a second plough should follow the first in the same furrow, and turn up an additional quantity of earth upon the sod to receive the enriching and fertilizing matters generated by the decomposition of the sod.

The primary importance of the presence of lime in soils is a subject of controversy among scientific men; and its effects upon the soils and manures, whether chemical or mechanical, is but little understood by them, and the subject is still less understood by the practical farmers themselves. Whoever shall publish a concise and practical work, suited to the comprehension of the practical farmers of the United States, on the various "chemical changes, combinations, and decompositions that take place in manures and soils, by which certain known elements are brought into action and made to subserve the wants of growing plants," will confer a great blessing upon his fellow man, and supply a desideratum very much needed.

THIRD AGRICULTURAL MEETING AT THE STATE HOUSE. Cultivation of the Potato.

Mr. Cole, Editor of the Farmers' Journal, having been requested to open the discussion, stated that he had not prepared a speech, but would make some remarks. He was unable to determine which account was correct, that which considered South America, or that made Virginia the place where the potato was first found. When first introduced into England, it was small and inferior in quality, but has been improved by cultivation. It is now almost every where acclimated; and it is singular that a tropical plant should be improved and should do best in high latitudes.

The planting of seeds, and climate, both may have contributed to give us the many varieties that now exist. Where the climate is warm, they do best on a cool soil; at the North, best on lighter soils. He has been most successful in cultivating them upon green sward. Plows late in May or the first of June; the sod decomposes fast, and is serviceable to the crop. If planted very early, they get ripe too early, and do not keep well. Chooses to plant the last of May or first of June.

Fresh horse or ox manure he considers better than that which is rotted; crop best where manure is put in the hill. Harvesting should not be earlier than the last of September or first of October. When dug, should be kept as much as possible from the action of the air and sun. Close bins in the cellar are good for keeping them. It is well to cover them with earth, sods, boughs, or the like, and to close the cellar as soon as the potatoes are in.

Is large or small seed best? He had made the experiment, putting in the hill in one row a single large potato, in another row two small ones. The large seed gave 6 bushels, where the small gave 5. Sometimes the difference is greater than this. Much may depend on the season and soil; when these are dry, large does the best, furnishing drink to the plant. Where large seed is selected for many successive years, the variety is improved; if this be not done, it deteriorates. One gentleman in New York, whose experience Mr. C. related, has caused a variety to improve by selecting large seed; and so had another man of his acquaintance who had selected for 30 years. Some varieties at times give but few balls—and is not the production of balls an indication of degeneracy?

The taking off the blossoms has been found to increase the crop; sometimes it has nearly doubled the produce. Once Mr. C. collected balls where they equalled one quarter the crop of potatoes. It is better to get seed from the South than the North.

Some in cultivating make a hill and others do not. He prefers a small flat hill. Once on hard and rocky land where he could make but little if any hill, he obtained 100 bushels from one eighth of an acre—the land rich. Hills that are surrounded by sods do well.

Mr. Plunkett, of Pittsfield, stated that he had made the following experiment. He planted 9 rows, each about 15 rods long; and put in each hill for seed in the rows as follows:

1st row, one large potato—produce,	5½ bush.
2d " two small do. "	4½ "
3d " one small do. "	2½ "
4th " one seed end, "	3 "
5th row, one butt end—produce,	4½ bu. good
6th " ½ of one potato, "	4½ "
7th " two large potatoes, "	6 "

8th " one (pink eye) "	3 "
9th " one (black kidney) "	4½ "

Size of the produce was prevailing like that of the seed, excepting where he put two large potatoes, and in that case there were too many small ones. And this shows that while large seed is best, that you may over seed. That large parents will produce large offspring, is a law of nature, and holds true as well in vegetables as in animals.

Covering deep always has injurious effects upon this crop. Where the seed is placed deep in the ground, the roots strike out from the stem near the surface, and distant from the parent seed. Dr. Campbell, of Pittsfield, has made many experiments, and finds that wilted potatoes will come up the quickest, and are best for an early crop. The climate must determine which is the best soil for this crop. Warmer lands at the North than at the South, are most adapted to its growth.

The kidney-shap'd or egg-shap'd potatoes never do well on a dry soil. They require ground that is damp and not cold. Round potatoes and round oblong, will often do well on dry soils.

The shape is of value in determining the quality of the potato. The round oblong (Merino, Long Red, &c.) are the coarsest. Next, the round, (English Whites, Round Blues, &c.) then the flat kidney-shaped, (Chenagos, and others like them in shape,) and lastly the egg-shaped. The first kind give very little starch per bushel; the second give 6 lbs.; the third, give 6½ to 7½ lbs.; the fourth give 8 or 8½ lbs. Where the productiveness is great, the quality generally is not good. Where the quality is good, the yield is not great.

Mr. Dodge, of Hamilton, stated that some farmers put the manure above the seed in the hills, and inquired whether any one present had tried this method and could give the results.

A gentleman (name not known,) replied that whether it was a good course, depended upon the soil. Where that is dry, he was understood to prefer the manure on top—but where wet, the manure should be below the seed.

Mr. Putnam (Editor,) then stated that his experience were not worth much, for he had not been very successful with this crop. He however had studied it some during the past year, and would give an opinion.

Bulbous roots do best where there is a mixture of sand in the soil. This probably, in part, because the sand fits the soil to give place or yield easily as the bulb expands. He had noticed too, that where sods surround a hill of potatoes, or stones of such shape as to admit of a free circulation of air in the hill, that the potatoes grow large. He informed that in order to have the tubers of potatoes do well, they should be in a soil or manure that will yield easily to their pressure while they are enlarging, and in one also that admits of a free circulation of air. But the potato, besides having a bulb or tuber, has also fibrous roots, and these fibrous roots, like a fine or pulverized soil and manure; therefore it may be desirable to put a little fine manure in the bottom of the hill for the roots, and then above, put butt stalks, hay, brakes, leaves, brush and the like, to furnish a bed in which the tubers can expand easily and breathe freely. He gave this merely as a theory. (Had he been willing to consume the time, he thinks he could have adduced facts, from which these views would have been no forced inferences.)

Mr. Dodge, of Hamilton, as evidence that Mr. Plunkett was right in thinking that the egg-shaped potato likes a moist soil, stated that he planted the St. Helens, the first year after obtaining it, in a warm moist soil, and the produce was good—very good; but has since been growing it upon dry soil, and it has been doing very poorly. He prefers the Long Red potato to any other. This has been raised on his farm for many years, and has been improving in quantity and quality. It stands drought well.

Some persons are of opinion that the potato crop is one of the most profitable, and if it be so, it is desirable that farmers generally should be made acquainted with the fact. One gentleman of his acquaintance in West Newbury, raises largely for shipping, sometimes thousands of bushels annually, and thinks it his best crop. This man plants in drills.

Mr. Stone, of Beverly, stated, that the question, by what means the greatest amount of this crop can be obtained from a given soil, is an important one. Is any one kind of manure or mode of culture to be preferred to all others? A Mr. Barnum, of Vergennes, Vt., states that he has produced 1000, 1200, and even 1500 bushels per acre. [See article headed "Gen. Barnum's Potato Crop," on page

235, of N. E. Far.] He is in a colder climate than ours, and is on a clay soil. He plants in drills running North and South; the drills 20 inches apart and 6 deep; manure in the bottom. Seeds 6 or 10 inches apart. Soon after the potatoes are up, stirs the ground between them, but does not hoe. Then carls on rubbish of all kinds that he can get, and covers the ground over. He says if you hoe, you make pits, and after rain there will be a crust. If you hill, drought may pinch. His application of a coating of old hay, straw, brush, &c., is more expensive than hoeing, but is more profitable. Mr. S. then asked, can such a course of culture be adopted here?

Col. Newell, of West Newbury, stated that in Essex county, we get our best potato crops upon peat meadows that have been well drained; and that this fact, since that those lands are very light and porous, may favor Mr. Putnam's view as to the benefits of air. He rather chooses to raise upon old ground, and after the plants are up to harrow the rows, (the tops of the rows, if we understood him, and this harrowing is a substitute for a first hoeing,) and subsequently he gives one hoeing. He thinks some other kinds are better than the Long Red.

Mr. Putnam. The facts that Mr. Dodge, whose soil is mostly light, prefers the Long Red, or La Plata; and that Col. Newell, whose soil is clayey, does not prefer this, but rather the flat potatoes, go to favor Mr. Plunkett's view, that round and oblong round, are better suited to dry land than are the flat, kidney, or egg-shaped.

Mr. Alger, of Chelsea, stated that on lands where he was told that if he did not put a spoonful of lime in the hill, the worms would spoil his crop, he applied the lime, excepting to a small part. Where there was no lime, the worms troubled him, but did not where he limed. He inquired whether it is best to cut the seed.

Mr. Stone, of Beverly, suffered from worms where he used barn manure, but not where he applied muck or seaweed.

Mr. Lathrop, of South Hadley, stated that for this crop, he plows well, turns the furrow flat, spreads long manure, and harrows it in. Cuts his seed, if large. Makes no furrow or hole; puts the seed on the surface, and barely covers it. In this way he gets his largest crops. If, however, he had but little manure, he might put it in the hill; but if so, he would keep the manure up at the surface. He wishes to obtain quantity, and excepting a few for table use, plants the kinds that prove with him most productive, which are the Rohans and Merinos. [We think the Merinos of the farmers from the western part of the State, are the Long Reds of the Eastern—i. e. the La Plata—but on this point there is some doubt.—Ed.]

The gentleman who next addressed the meeting, was not heard by us with sufficient distinctness to enable us to report his remarks.

Mr. Merriam, Ed. Cultivator, thinks that if the soil is wet, it is best to use coarse manure, and put it under the potatoes. But in other soils he would not do this, for fresh strong manure under them, is apt to produce worms. If the manure be spread, the worms do not appear. Plaster increased his crop one fifth. He gave various facts which rendered it probable that a little salt in the manure will keep off the worms.

Question for discussion at the next meeting—the Cultivation of Fruit Trees.—N. E. Farmer.

General State of the Bank of Virginia and Branches, January 1, 1842.

Loans and discounts,	\$5,210,153 39
Stocks,	696,013 12
Real Estate,	337,612 55
Specie,	850,586 82
Sterling Bills,	23,303 40
Due from other Banks,	438,297 04
Late Teller's deficiency at Richmond,	535,524 41
Variation in balance of Books,	25,929 84
Balance, in transitu, between the Mother Bank and Branches,	676 78
Total,	\$8,119,114 67
Capital Stock,	\$3,043,100 00
Surplus Profits,	570,291 53
Discounts received at Branches,	8,210 76
Circulation,	2,730,472 37
Due to other Banks,	277,570 95
Deposites,	877,107 15
Dividends unclaimed,	12,361 90

\$8,119,114 66

WINTER PLOUGHING—EXTERMINATION OF GARLIC—ACCUMULATION OF MANURES.

This is the 4th day of February, and the temperature of the air is more like that of the middle of spring, than that of a day of winter. Indeed, it has been so warm as to render a fire uncomfortable. That weather so unseasonable should prove healthy, is more than we can reasonably expect, but as it has been the will of Him who is the author of all goodness, so to order it, it behoves us to bow in submission to his behest. But while duty and gratitude both combine to indicate the path we should pursue, there is nothing to deter us from improving time, and converting into positive good this unexpected change of the season. And with that view, we would respectfully suggest to our agricultural brethren, the propriety of attending, and that without delay, to the following things:

- 1st. The ploughing up of all stiff clayey grounds intended for spring cultivation.
- 2dly. The ploughing up of any fields they may have, which are infested with garlic, or any kindred pests.
- 3dly. The accumulation of manures by all possible means.

With regard to the first, we would remark, that the advantages to result from it are so apparent that it is almost useless to illustrate them. There is nothing in the art of agriculture, about which there is more union of sentiment, than that of the benefits resulting from the exposure of soil of a stiff and cohesive character, to the influence of wintry frosts. Its tendency, as is well known, is by the power of disintegration, to render it not only more permeable to the absorption of water, but to impart to it a friability and mellowness highly conducive to the growth of plants. Whilst these are a portion of the resulting benefits, the capacity is also imparted to the soil, of parting with superabundant water, and of thus relieving its vegetable growth from the evil of existing in a mere bed of mortar, a thing always to be deplored.

Although we recommend to all, to subject their stiff soils intended for spring crops to this treatment, we desire to qualify our advice so as to leave it to the parties to judge, whether their lands are in that condition to justify such a procedure. Clayey lands, as all who know their business, do know, should never be ploughed when too wet, and the test of that, is equally within their knowledge. It is only such lands, then, as will not derive injury from being broken up, that we wish to come within the range of our advice.

With respect to the second, we have but a few words to say. Experience, which is the best of all human teachers, has proved, alike, that among all the pests to which the wheat grower has been subjected, that *Garlic* is the greatest, and that of all the means hitherto used for its destruction, nothing has proved so effectual as winter ploughing and harrowing. Such being the case, no one, who has the means of testing its utility, should hesitate a moment with regard to the propriety of making an effort to eradicate it from his land. Many fields, which in former years were celebrated for their product of wheat, both in quantity and quality, have had their capacity greatly impaired, by being overrun by this worse than useless weed, and we have known the price of wheat diminished from ten to twelve cents in the bushel, because of its abounding in the seed.

Of the third thing—the accumulation of manures—we propose making an appeal, thus timely, in the fond hope that it may conduce to good, now and for time to come. It may be like carrying coals to New Castle, or onions to Connecticut, to tell our co-laborers, that but few if any can make manure enough in any one year to give our corn-fields a dressing. But it may not be amiss to remind them, that there are but few of them who might not do so, were they to exert all the industry and means within their reach, with a view to the attainment of that object.

This the most of them might do in ordinary years with ease, but such has been the auspicious character of this, that nothing but absolute neglect of duty, can account for an omission to have done so. And as that, so far from being a justifiable excuse, is no apology at all, we will now, in order that delinquents may make up for lost time, recommend to all such, to set every cart and wagon on their premises to work, without another day's delay, in hauling mould and leaves from their woods, and to form them into compost-heaps with their barn-yard manure, to be ready for their corn ground in early spring. By adding two bushels of lime to each double horse, or ox cart, of such materials, they would add 33 1-3 per cent. to its present and future value, and increase their corn-crop fully to that amount.

Don't let any one say that it is too late to avail of such resource, for it is not so, as there is ample time, not only to haul the manure from the woods and for its formation into compost heaps, but also for the commingling of the mineral salts with the contents of such piles; we have since the 1st of January, by these means, secured hundreds of loads of valuable manure, and are now embracing every opportunity to increase the amount. By a proper exertion of energy, two men, with as many double horse, or ox-carts, unless the woods were very distant, indeed, would be able before corn-planting time in most of the states, to secure a body of manure sufficient to dress a twenty acre field, and thus, perhaps, enhance its capacity for production fully to the amount before named by us. If any one doubts the soundness of our conclusions, let him make the experiment—but let him make it with an honest zeal—and we fear not the result.

FRUIT TREES.—The opportunity should be embraced during the continuance of the present mild weather, to set out such fruit trees as it may be intended to plant this year. The earlier the better, as when delayed till late in the season, the hot sun is liable to affect them injuriously before they have had time to take sufficient root. We are now engaged in planting out a Peach Orchard, of the very superior kinds mentioned in the catalogue of the Manager of Lloyd N. Rogers, esq. as contained in his advertisement on our advertising page. Knowing as we do, that these trees have been procured at great cost and care, and none but the choicest kinds admitted in the collection, we can with all confidence, recommend them to our friends who intend planting, as being worthy their attention. When it is borne in mind that poor fruit costs as much labor to rear it as a superior variety, who does not at once see the propriety of making a selection of the choicest kinds, even if the first cost is something more, which, however, we are not aware of being the case with those in the above mentioned catalogue.

THE SEASON.—The extraordinary mildness of the present winter appears to have extended over the greater part of the Union. The Columbus (Ohio) State Journal thus speaks of the season in that quarter:

Thus far the mildness of the winter has been almost without a parallel. It is now several weeks since the earth has been whitened with snow, and altogether there has not fallen probably more than three inches. Lake Erie contains no ice, and has been much less agitated by storms during the month which has just expired, than in October last. Saturday was a spring day, with showers, and at its close several thunder gusts were passing in different directions. The evening was like many witnessed in summer, when frequent flashes of lightning illumined the eastern horizon. During Sunday we had a powerful fall of rain, with additional thunder and lightning, and though a brisk north-west wind was blowing all day yesterday, no material reduction of the temperature was experienced. The moral of all this, is, that we have a poor prospect of laying in ice for next summer's use.

Every farmer should have a work shop.

CULTURE OF CORN, OATS, RYE AND GRASSES.

For the American Farmer.

Mr. Editor:—Having been a reader of your valuable paper for several years, I have seen much in it to improve and instruct me in that all-important, though but little understood subject, farming. And although it sometimes happens that I disagree with some of the doctrines there laid down, yet when I consider the little harm that is mixed up with so much good, I am reminded of the imperfections of man and all connected with him. I have thought therefore, that I might be of some service to my fellow countrymen, if by any thing I can say, I can render more perfect, so imperfect an art. In attempting which, should my language tell that I am a plain man, I shall derive much comfort from the fact, that a majority of those to whom my notions are addressed, are so much like me.

It is perhaps unfortunate for me that I am not better acquainted with chemistry, which certainly forms a most important attribute to a proper knowledge of farming—but as I only intend to state results and not causes, I hope the introduction of its acquaintance here, will not be considered so necessary.

In the first place, I am convinced of nothing surer, than that systems of farming differ with the soil and climate. I shall not therefore, lay down my mode of farming in Maryland, as the one best suited to Maine or Florida, for it is very likely it would not succeed in either of those regions. My object is to confine myself to Maryland farming—how it will suit other sections of our widely extended country, depends very much on the relation they bear to our geographical position. Before I enter upon a dissertation of the particular cultivation of particular crops, I would say a word on what is commonly denoted a "rotation of crops." It is well ascertained that certain crops succeed better if sown or planted after certain other crops—thus oats will grow one third better if sown on corn land; so wheat succeeds better after oats, &c.—This must be occasioned either by the peculiar preparation of the soil by the preceding crop or the peculiar properties which the vegetable matter acquires from such preceding cultivation.—But when we speak of a rotation of crops, we mean the regular succession of different crops upon the same piece of land. Now in my opinion there are some soils, (and indeed the most of them) that will not admit of a regular succession of crops, for instance, if to sow wheat upon a clover lay, constitutes one part of the succession, we will very often miss a crop, and why? Because the land by standing in clover two or three years, very often becomes filled with blue grass or other pernicious grasses; upon a lay of which, wheat will not succeed.—We are compelled therefore to put that field in corn or some other crop, which will rid the land of this filth. With this brief view of this part of my subject, I will proceed to give you my ideas concerning the cultivation of that greatest of all crops, Indian Corn. A difference of opinion exists among culturists as to the proper time to break up your corn land—some arguing that fall ploughing is the best, whilst others contend that the spring is the proper time for that operation—my own opinion inclines towards fall ploughing, especially if a clover lay—by this method you escape the worm which is so destructive to the young corn; and by turning the clover down, you thereby cause an early fermentation of the vegetable matter, which constitutes the food of all plants, and you are moreover so far advanced with your spring work, of which ploughing forms so important a part. Your land should be broken up with a 9 or 10 inch plough, not more than 6, or less than 4 inches deep, if on thin lands, but on deep soil, 7 inches, or even 8 is advantageous. The first operation in the spring is, to lay off your land in checkers—I have found 4 foot to be the proper distance, and the single shovel plough the best implement for that operation—drop from four to five grains in each hill, taking care to leave but two stalks in the hill when the proper time arrives for thinning. If your land is poor, be sure to drop in each hill, about a half a pint of slacked ashes, mixed with a little plaster (say at the rate of 1 quart to the bushel of ashes; if the ashes are not slacked they may be mixed with about double their quantity of rich earth and about one 16th part plaster, of which mixture put about a pint in each hill, immediately over the corn. If too much unslacked ashes are put in the hill it burns the corn up and will not permit it to sprout. In covering your corn see that a fine mould is used, or it will come up crooked and irregular, and never assume a thriving appearance. As soon as your corn is fairly up,

run your big harrow over it both ways, taking out the middle teeth to prevent the corn from being dragged up, and at the same time levelling and preparing the land for the introduction of the shovels. Now here commences the great juncture of tending corn, a proper description of which depends much on the situation and condition of the ground; if it be free of grass or weeds, the best implement to be used after the harrow, is the cultivator—it is immaterial of what shape it is, so that it runs easy to the horse and pulverizes the ground about 2½ inches deep; this operation should be given as soon as possible after the harrowing—you need not use the shovel until you see that the grass is taking hold, which it commonly does in 10 or 12 days.—Here I disagree with the old doctrine of cutting the roots of the corn to make it grow—they should not be cut at all if possible; it is contrary to all reason; and finds countenance only in blind prejudice—all your ground requires is to keep it properly pulverized and subdue the grass—the one is essential in order to allow the roots a greater latitude in search of food, and the other to prevent the appropriation of it to useless vegetation. The number of times your plough should go in each row depends upon the size of your plough and the condition of your land—if your plough is large (which it should be) and your land friable and free of grass, three times if sufficient, is these too circumstances are not in your favour, four times may be necessary. After this ploughing you may let your corn rest 10, 12 or even 13 days if your land is not disposed to be grassy, then put in your plough again, and by this time you will have approached the middle or latter end of July, after which time all further ploughing becomes unnecessary, and your corn is then laid by. A great many object to the shovel plough, and consider it a useless implement in the field, but I defy them to kill grass or cut up briars as effectually with any other; if they can, it will form an era in the improvement of farming utensils. The main objection to them is, that they throw up the land to the action of the sun, and thereby causes much of its valuable qualities to be evaporated, or otherwise lost; but when we consider the great advantage derived to the corn by the action of the sun, the objection is lost. The roots of corn must have sun as well as rain; for it is a well known fact that all vegetation seek the sun, and unless exposed to its influence, sicken and die. We see this further illustrated in the fact that the roots of all vegetables take their proper distance from the surface of the earth, in order to receive the beneficial influence of the sun. Closely connected with the growth of this crop, is the saving of fodder.—It seems to be admitted by all that the best mode to secure it is to cut the corn off at the roots as soon as the silk becomes dry; by this method, you save an immense quantity of material for manure, which otherwise would be lost; besides it affords an opportunity for flushing up the land, which is essential to the reception of small grain. Much advantage in securing this valuable article, results from the proper disposition of the hands: five should go together, the weakest in the middle—let each hand cut 3 rows, which will make 15, the whole to be set up in the middle row of the weak or middle hand.—You then work to advantage, and leave a space of 60 feet between the rows, and of course less ground is lost in seeding.

On the cultivation of wheat, but little can be said, as but one universal practice seems to prevail among farmers in the cultivation of this crop. The only points to be attended to are to give your lands a good ploughing, about four inches deep (which should be done in the month of September, or early in October,) and about the last of the latter month sow about a bushel and a half of seed to the acre, and run the two horse harrow each way over the grain; double shovels put the grain in better, but when we count the cost of time, we gain nothing by the operation. If buckwheat be sown with the wheat it serves to protect it during the severe winter weather, and gives it an early start in the spring; rolling your wheat as soon as the frost disappears in the spring, proves very beneficial to it. The same mode of cultivation will apply to rye. One great cause of failure in these crops is the bad manner in which your land is broken up; if it be not well turned over the blue grass will take possession and choke the wheat, so that it never recovers. The cultivation of oats is likewise generally understood, and the same mode adopted; they should be sown however, about the 1st of April, on corn land, to which they are peculiarly adapted, whilst, on the contrary, wheat and rye prefer fallow ground. I have generally found a bushel and a peck to be sufficient to the acre; they should be put in with

the shovel plough, and the ground brushed level—a large flat brush is better than a harrow, because the latter is apt to be continually choking with the stalks or roots of the corn.

The seeding and cultivation of the grass crop deserves great attention—and as clover and timothy constitutes our principal hay, I will say a little of each separately. Clover should be sown as early in the spring as possible, if there is snow upon the ground, it can be sown much more regular than on the naked land; a gallon of seed to the acre is sufficient. No stock of any kind should be allowed to run on it the first year, for much injury is done it, especially in wet weather, if thrown open to the stock; and here it may be proper to remark, that a great mistake prevails among most farmers in keeping too much stock; by doing which they eat off all that protects the land from the rays of the sun, which constitutes the great secret of improving land. A farmer should not keep stock enough to eat up all his rough food—better bed his cattle with it, especially if manure is an object with him. But to return to my hay—the curing of this article, (clover,) requires more than common attention; it should be cut when most of the heads are beginning to turn brown and have lost their blossom. The grass when cut, should be immediately spread out to the action of the sun and air, and in a couple of hours turned over; then in about the same length of time, it should be thrown into windrows and in the evening cocked up, ready to be carted in, the next morning, whilst the dew is on it. Much injury is done this grass by suffering it to become too dry before hauling in, as many of its leaves are knocked off by handling it. Timothy should be sown about the last of August—plough up your land with a light two horse plough about the 1st of the same month; sow a peck of buckwheat to the acre and harrow it in well—when the buckwheat is about 6 inches high, sow about 2 gallons of timothy seed among it—this mode of seeding requires but one trial to convince any one of its entire superiority over all other methods—at least one half of the timothy sown in Maryland, perishes from its exposure to the bleaching of the sun, and the winter is often blamed for the destruction, which should be charged to the sun—protection then, is all important to this grain. I have no doubt from repeated experience that this grass should not be cut until the seed is very ripe; this appears to be contrary to the idea that grass when cut in a green state retains more saccharine matter—it may retain more water, but its nutritive qualities never arrive at maturity until the grass is ripe; for we all know that a green apple is not so nutritious as a ripe one, nor green corn as ripe. The grass when cut at this state may be hauled in the evening of the same day it is cut.

In my next I shall treat of that most important of all subjects to Maryland, "The improvement of poor land," with which she abounds. MONTGOMERY.

MASSACHUSETTS AGRICULTURAL SOCIETY.

Premiums on Crops.

At a meeting of the Board of Trustees of the Massachusetts Society for the Promotion of Agriculture, held Jan. 8, 1842—

The Committee on Crops made a report of the premiums awarded, which was accepted, and they were requested to publish the communications which they had received.

A copy from the record.

BENJ. GUILD, Rec. Sec.

The Committee of the Trustees of the Massachusetts Agricultural Society "on Vegetable and Grain Crops," having examined the several claims, awarded as follows:

To Francis Dodge of Danvers, for his crop of Indian corn, on one acre, being 105 bushels, weighing 70 2-5 bushels as measured in baskets, or 98 42-75 bushels, of 75 lbs. each. \$30
To Frederic Tudor, for his rare crop of sugar beets, grown at Nahant, having had, on 93 rods, 42,284 lbs., which at 46 lbs. the bushel, gives about 1300 bushels to the acre, or 36 tons, 15
To John Noyes, of Newburyport, for his crop of winter rye, being 40 22-32 bushels from 1½ bush. of seed, 20

Mr. Leonard Hill, of East Bridgewater, presented his claim for the premium on corn, having produced 92 bushels on 1 acre and 4 rods—almost equal to Mr. Dodge's crop. P. C. BRONKS, For the Committee.

CORN CROP.

Francis Dodge's Statement.

To the Committee of the Massachusetts Agricultural Society "on Grain Crops."

GENTLEMEN—I offer for premium a crop of Indian corn, obtained from one acre of land, and measuring one hundred and five bushels. The land is a dark loam, with a subsoil of clayey gravel. I know not the name of this corn, but some of the same was exhibited at the annual meeting of the Essex Agricultural Society at Georgetown. A crop of hay was taken from the land last season, after which it was plowed and sown to turnips and corn. It had at this time a dressing of three cords of manure from the hog yard. In the spring it was cross plowed and harrowed, and four cords of manure from the cellar was spread on, when it was again plowed and furrowed at a distance of three feet four inches one way, and three feet six inches the other: four cords of old manure was put in the hill. This manure was hove well for the purpose of getting it fine. It was planted the 8th and 11th of May; 7 kernels were dropped, and from 5 to 6 stood. It received two hoeings; at each time the cultivator was used. The 27th of September it was cut up and stooked, and harvested the last of October.

Expenses of the Crop.

Interest of land, (valued at \$100,)	\$6 00
Eight cords of manure, at \$6,	48 00
Heaving old manure,	1 00
Plowing twice and harrowing,	6 00
Furrowing,	1 75
Putting out manure,	2 00
Dropping, and covering seed,	2 25
Cultivating twice, and hoeing twice,	7 00
Cutting up and stooking,	2 00
Harvesting and husking,	9 00
	\$84 00

Value of Crop, &c.

Half of the manure,	\$24 00
105 bushels corn at 80 cts.	84 00
3½ tons fodder at \$10	35 00
	\$143 00
From which expense of crop,	84 00
	\$59 00

Net profit.

\$59 00

FRANCIS DODGE.

North Danvers, Nov. 1841.

This is to certify that I, James Flanders, measured the corn within mentioned, and the number of bushels as stated, was taken from one acre of land. I also weighed several baskets of the above corn, and found it to weigh 70 2-5 lbs. to the bushel.

JAMES FLANDERS.

Land Measured by Ansel W. Putnam.

SUGAR BEET CROP.

Frederic Tudor's Statement.

To Benj. Guild, Esq.—Sir—In the spring of 1840, I caused about an acre of land, of the pasture lands of this place to be fenced in and trenched 20 inches deep. The ground had never before had an agricultural instrument of any kind in it. It was a pasture, of indifferent soil, with many stones in and upon it.

The trenching consisted in reversing the soil for 20 inches in depth with the spade, and after put all the stones (which were found) in the bottom; 3 inches of muscle mud were put on them, followed by the turf and best of the soil—then 2 inches of rock weed and kelps, fresh from the shores, or cut from the rocks; then the less rich part of the soil and more muscle mud; the top left with the poorest and most gravelly soil. In all, there were about 8 inches, in perpendicular height, of manure, added to the soil, which when pressed, might have been 5 to 6 inches in perpendicular height; so that the land had been moved with the spade a depth of a little exceeding two feet.

In the spring of 1840 it was sown with sugar beets, but did not do very well, the top soil being so very poor. In the spring of 1841, I had it plowed about 6 inches deep, but the plow did not reach any of the richer parts of the soil below, and exhibited little more than yellow loam and gravel.

I caused 93 rods of this lot to be again sown with sugar beet seed this spring, and after the beets had come up, had

the land dressed on the surface, (merely spreading it on,) with 15 cords of rich cow yard manure. This caused the young plants to grow greatly, and the crop has been so large, that I have determined to exhibit it before the State Agricultural Society, and put in a claim for the premium which they offered, which I beg leave now to do.

I should observe that I had no design of making the claim, until the growth of the beets promised a great return. There has been no particular care of them given and indeed several patches in the 93 rods were to be seen where the seed had failed, and which should have been filled with plants, if the object had been to try the utmost which was possible. Also, during the dry weather of August, the tops of several of the rows were cut off for fodder for the cows. My own belief is, it would be possible to have produced on the same piece of ground, if much care had been taken, 1600 bushels.

I think the crop which has been thus produced on my land has not been caused by the trenching, but by the looseness of the soil and the top dressing of rich manure, of which I have spoken. The usefulness of a top dressing, more especially in a dry season, is undoubtedly great.

Inclosed are the certificates, which I suppose to be all the Society will require. The whole crop was sold by auction, and the weights given were what the purchasers paid for, when they took the beets.

I am your ob't serv't.

FREDERIC TUDOR.

Nahant, Nov. 1st, 1841.

NOTE.—The largest beet of the field measured 34 inches in circumference, and weighed 31 lbs., but was hollow-hearted.

The largest sound and perfect beet weighed 21 pounds.

A fair bushel measured of these beets weighed a fraction short of 60 lbs., which gives a fraction over 1217 bushels to the acre. The weight of 50 lbs. to the bushel, which is the usual weight allowed, gives a fraction over 1454 bushels to the acre. As the Agricultural Society have prescribed 56 lbs. to the bushel, the number of bushels per acre at this weight will amount to a small fraction short of 1300.

F. TUDOR.

Land measure by Alonzo Lewis.

Weight of crop on 93 rods, 42,284 pounds—as weighed and certified by Ezekiel Peabody, Isaac C. Perkins, and W. G. Perkins.

RYE CROP.

John Noyes' Statement.

To the Trustees of the Massachusetts Society for the Promotion of Agriculture:

GENTLEMEN—I enter with you for premium, a crop of winter rye. The soil on which it grew is a black loam upon a clay bottom. Potatoes were raised upon the land for three years previous.—The produce in 1840 was two hundred bushels. Eight cords of manure used, was plowed in. The last of September, 1840, I sowed one and an half bushel of rye. Reaped the grain July 20th, 1841, and thrashed within ten days after. The produce was 40 bushels and 22 qts. besides 8 qts. of small grain.

Yours, with respect,

JOHN NOYES.

Newbury, Nov. 10, 1841.

Grain measured by John J. Adams. Land measured by Tristram Little.

CORN CROP.

Leonard Hill's Statement.

To the Trustees of the Massachusetts Society for the Promotion of Agriculture:

GENTLEMEN—The following is a statement of the cultivation and produce of a lot of Indian corn, raised by the subscriber in East Bridgewater.

The land had been planted to potatoes in 1840, and yielded 250 bushels. I put in 16 loads of good manure and had the potatoes hoed three times. This present year, the land was plowed about the middle of May, very deep, with a heavy plow; I furrowed the same very deep one way, 3 feet 6 inches apart; then I put into the furrows 63 horse-cart loads of horse, stable and hog manure, amounting to upwards of nine cords, from the measure of the cart; I then struck off the land the other way with a machine, just two feet apart, and planted; letting (where there were too many,) three stalks stand in a hill: I used eleven quarts of seed; one half yellow, and the other large white corn. I planted it from the 20th to 24th of May. I hoed the same four times, plowing between the rows each time. I hoed the first time the 10th or 11th of June, and the last time the first of July. I cut the stalks, be-

fore the 20th September, and cut up the corn and had the same husked and weighed from the 16th of October to the 24th of said month; and there was 173 baskets, weighing more than 40 lbs. to a basket—the whole made 6945 lbs., which is 92 45-75 bushels.

The cultivation cost—

Plowing,	\$3 00
Hauling manure, furrowing and planting,	5 00
Hoing,	6 50
Cutting stalks,	2 50
Harvesting,	7 25
	<hr/>
	\$24 25

The foregoing corn was raised on one acre and four rods of land, and was planted, hoed, harvested, and weighed by us.

LEONARD HILL,

GEORGE HILL.

Note by the Editor in relation to Mr. Dodge's statement.—Mr. Dodge appears, by the committee's report, to have obtained 105 bushels of corn per acre by *measurement*, and only 98 bushels by *weight*. This leaves room for the inference that his measurement was scanty. We happen to know that the crop was measured in October, for the purpose of entry for premium with the Essex Co. Agricultural Society; and that the weight was not ascertained until late in November. We have no doubt that large corn will shrink in weight during the first month after it is housed, near ten per cent. In 1839, we found a crop, by actual trial, to shrink between the last of October and the last of November, from 87½ bushels to 79½ bushels. Therefore, had Mr. D. weighed when he measured in October, it is probable that he would have had by weight 105 bushels or more.—N. E. Far.

COTTON AND INDIGO.

We take it for granted that the attention of the South has been seriously drawn to the progress of the cotton culture in India. It would be foolish affectation of indifference to pretend to overlook this enterprise of British policy, or to undervalue its importance, because its final results are not yet before our eyes. The project of making cotton the great staple of British India is deliberately entertained by a nation that seldom begins an undertaking without going through with it—by a nation, too, possessed of all the means that wealth, art, and industry may supply towards the carrying on of a work which, in its estimation, is imperatively required by the strongest considerations of interest and policy.

Whatever may be the views of our Southern cotton growers on this subject, we cannot for our own part look with unconcern upon the statements which from time to time are brought to our view showing the successful progress already made in the culture of cotton in India. The following is from the "Indian News and Chronicle of Eastern Affairs" of the 8th of November:

"The commencement is now fairly made, and the American planters are now actively engaged in carrying out the scheme according to their own system of cultivation. We trust to hear in due time of the full success of this important experiment; cotton is, and has been from the earliest times, the natural staple of India; and whatever means will improve the qualities and increase the export, whether arising from individual enterprise or from the efforts of government, must be looked upon with the deepest interest by those whose views or whose concern in the country exceed, however short the distance, beyond to-day."

"Let it be remembered that half a century ago, the cotton produced by the United States was, both in quality and value, merely nominal—a trifle not worth consideration—while at the present time its value is estimated, in official returns, at the almost incredible sum of nearly 115 millions of dollars, or at 23 millions sterling—a sum larger than the yearly revenue of the whole of British India—and a result chiefly brought about by the demand of the English market. Shall we despair, then, by well-judged means, of making our Indian possessions, in which the growth of cotton is indigenous, and has been so from time immemorial, productive to that extent which will be the means of again diffusing wealth and prosperity throughout this magnificent but impoverished extent of Territory. If the growth and improvement of cotton had been fostered with the same assiduity as that unfortunate weed, the poppy, how different, how widely different, would the results have been at this moment! Alas! for such monstrous errors of policy. Let us, however, now do our best to retrieve them."

The same paper contains a letter from Mr. FINNIE, one of the American cotton planters in charge of the government plantation on the Sumatra. He writes that cotton can be produced there cheaper than in any other part of the world. "It only requires," he adds, "the necessary means, constant application, decision, industry, and perseverance to make this beautiful and productive country the largest producer of cotton in the world. India possesses a soil and climate admirably adapted for its cultivation—with abundant and cheap labor. England is ready to furnish capital. America has already provided (it is to be hoped) skill and experience—and it only requires the two latter to be brought to bear upon the former, to realize the most sanguine expectations of those with whom this great national undertaking—experiment I can call it no longer—originated."

The cotton-growing enterprise now going on in British India does not afford the first instance in which that country has been made the means of affecting a great American staple. It is well known that Indigo was once largely cultivated in our Southern States, and that now it is not produced there. The indigo of the South was supplanted by the successful efforts of British capital and labor to produce the article in India. A course of policy was pursued similar to that which is now in operation with regard to cotton. The culture of indigo was carefully encouraged; the article was of great importance to the British manufactures; the soil and climate of India were favorable to its growth; and the result was that Indigo became a staple in India, and ceased to be a staple in America.

The following extract, which we find in the Boston Atlas, from the Report of the Proceedings of the East India Company in reference to the culture of indigo, will show some of the means resorted to for establishing that plant in India:

"About the year 1747, most of the Planters in Jamaica and other British possessions in the West Indies, relinquished this cultivation of Indigo, and the Spanish and French colonies, (where the best kinds had been made,) continuing to export, the British consumption of the finer sorts was chiefly obtained from foreign sources in Europe.

When the British provinces of North America had broken off their connection with the parent state, and the Company's territories in India had become greatly extended, another change took place. The Court of Directors made extraordinary efforts to increase the production of Indigo and improve its quality, foreseeing that, if they succeeded, the result would at once be highly advantageous to India and beneficial to this country, by ensuring a regular supply of an article essentially necessary to some of the most important British manufactures.—Influenced by these views, the Court, in 1779, entered into a contract with a gentleman in Bengal, who was engaged in the cultivation, for a supply at prices which were intended to encourage the growth. Other engagements of the same kind were successively made, until the year 1788. At that period, the Court, taking review of what had been done, found that very heavy losses had occurred under the existing system, but that the indigo produced had arrived at a considerable degree of perfection. The result of the inquiry was a determination that the Company should cease to purchase for at least three years, and that the trade should be laid open to their servants and other persons under their protection, upon the payment of freight, company's duties and charges. This, it was hoped, would create competition, and operate towards bringing the article to as high a state of improvement as possible, at the same time that it would effect a reduction in the cost of manufacture.

As a farther aid in this rising trade, the Company made large advances of money, secured on the Indigo, on a plan of remittance to London, and this course was followed for many years.

In 1806, the Court saw fit to order that their commerce in Indigo should be resumed in the following year, by ready money purchases to the amount of three lacs, and open to provisional extension in that season; and with some intermissions, the Company continued to purchase, either in the same mode or by contract, for exportation to London, to a greater or less amount, until a short time before the expiration of the late charter.

To assist the planters (of India) in their attempt to raise the superior produce of the Americans—that was all that was contemplated; but happily more has been achieved. India, for many years past, has produced Indigo of a quality surpassing that of any other country, and has long been the chief source of supply to the rest of the world."

There appears to be no reason to doubt that India is as well adapted to the growth of cotton as it is by nature to the culture of indigo. The policy which proved so successful in the case of the latter is now applied to the other, and similar means are used to ensure its efficiency, with this exception that greater effort, larger means, and a more intense anxiety, are devoted to the cotton growing experiment, on account of the superior importance of the article. Will the undertaking succeed! Instead of being surprised at its success, before many years we shall be surprised if it fails.—*Balt. Amer.*

BADEN CORN.

Nottingham, Md. Feb. 2d, 1842.

To the Editor of the American Farmer.

Mr. Editor—Sir.—Since the publication of my experiment on the Baden corn, I have received numerous applications for some of that variety to plant next spring; therefore I take the liberty of informing through your paper all who may be desirous of cultivating a corn which will, even under ordinary advantages, insure a good harvest—that it is not for sale by me, but that it can be had from Mr. Thomas N. Baden, near Nottingham, P. G. Co. Md. under whose hand it was reared to its present perfection, and who is still carrying on the work of improvement, by his careful and judicious mode of selecting his seed every fall.

Yours, &c.

JAMES HOLLYDAY.

[Mr. Baden will please forward to the publisher of the "Farmer," 30 bushels of the above corn.]

PRESERVATION OF GRAPES.—The following paragraph, we copy from the proceedings of the Philadelphia Society for promoting Agriculture.

Mr. James Gowan made his annual present of a basket of Grapes, of the Isabella, Catawba, and Bland species; they were in the highest perfection and full of fine juice. The mode of preserving them is extremely simple, notwithstanding the mystery on this subject to which some pretend. It is thus:—a floor is made between two joists in the cellar and the ends enclosed; the space is filled in with grapes and fine wood shavings. Editors of newspapers should copy this information.

THE MEETING IN QUEEN ANN'S.—We learn from the Sentinel, that the meeting which took place in Centreville on Saturday last in opposition to the leading recommendations of the Slaveholders' Convention, was an unusually large one. Pere Wilmer, Esq., was appointed Chairman, Robert P. Clinton, Esq., Secretary. The Committee who reported the preamble and resolutions were William Carmichael, Madison Brown, Henry E. Wright, Arthur Emory, Sen., and George C. Palmer, Esqs. The meeting was addressed by Judge Hopper, Wm. Carmichael and Wm. A. Spencer, Esqs. The first two in favour of the Committee's Report—the last only so in part. The Committee were sustained almost by acclamation. Another and a joint meeting has been called for Saturday next.

The Bank of Pennsylvania has stopped operations, and the interest on the State debt has not as yet been paid, but it is believed will be in the course of a few weeks.

We regret to say that the interest on the State of Maryland's debt due 1st Jan. is still unpaid, and there is no telling when it will be paid.

The notes of the Bank of Virginia are at a discount of 12 per cent. in Baltimore. See statement of its affairs in another column. Other Virginia notes, except Wheeling, 6a7 per ct. Rail road orders 12a14. South Carolina per, Alabama 20 per ct., Philadelphia 6a8, N.York 4 prem.

BALTIMORE MARKET.

Hogs.—But two small lots of Live Hogs have been in market during the week, and they were all sold at \$6 to \$6 25 per 100 lbs. The market is now without supplies and there is a good demand.

Cotton.—A limited lot of Georgia Upland was sold at 91 cents.

Cloverseed.—Sales of some prime parcels have been made during the week at \$5.75 a \$6 per bushel. We quote at \$5.50 to \$6.

Timothy Seed.—We note a sale this week at \$3 per bushel from stores.

Molasses.—At auction on Tuesday 231 hds. good Matanzas were sold at 18 cts. and 42 tierces do at 191 cents.

Tobacco.—The market continues without animation, and the transactions confined to extremely limited parcels at prices within the range of quotations, viz. Inferior and common Maryland at \$3.50a\$4.50; middling to good \$5a\$7; good \$7.50a\$8.50; and fine \$9a\$13. Ground Leaf is worth \$5a\$7 for common to good quality, and \$7.50a\$8 for extra. Ohio is quoted as follows, viz. Common to middling \$4a\$5; good \$5a\$6.50; fine red and wrappery \$7a\$10; fine yellow \$7.50a\$10; and extra wrappery \$11a\$13.—The inspections of the week comprise 5 hds. Maryland; and 20 hds. Virginia—total 26 hds.

Cattle.—To-day at the drove yards there were 233 head of Beef Cattle, of which 126 were sold to butchers at \$3 50 for inferior to \$6.50 per 100 lbs. for prime quality. Of the balance, 86 head were driven North, and 21 remain in the market unsold.

Flour.—Sales of Howard Street Flour were made from stores on Friday afternoon at \$5.56. To-day holders are more firm and generally asking \$5.62. We note sales of good standard brands this morning at \$5.56, and also at \$5.62. We quote the wagon price at \$5.50.

No transactions in City Mills Flour, which is held at \$6.12. **Grain.**—No sales of Wheat. We quote the value of good to prime Md. reds at \$1.10a\$1.20. A cargo of Md. white Corn was sold to-day at 53 cts. We quote yellow at 55 cts. The last sale of Oats was at 44 cts.

Provisions.—The market continues very dull, and prices nominally the same as last week, viz. Mess Pork is held at \$11; Prime at \$9.50; New Baltimore Mess Beef at 10a\$10.50; No. 1 at \$8a\$9.50; and Prime at \$6a\$6.50. Bacon is held as follows, viz. New Baltimore cured Hams at 9a10 cents; Sides at 6 cents; Shoulders at 5 cents; and Hog round at 5 cts. We quote prime old western Sides at 3 to 3 1/2 cents; Hams at 4 to 7 cents; and assorted at 3 to 3 1/2 cents. Inferior qualities of this description are held at lower rates according to condition. Small sales only of new No. 1 Western Lard are making at 6 cents.

At New Orleans in the three days ending 26th ult. transactions in Cotton had been to a fair extent, and sales amounted to 15,000 bales, at prices ranging within the following:—Liverpool Classifications.—Inferior \$6a\$6 3/8; Ordinary 6 1/2; Middling 7a7 1/2; Middling fair 8 1/2; Fair to fully fair 8a10; Good fair 11; Good and fine 12a15; North Alabama and Tennessee 6a10. Sales of Sugar had been effected to the amount of 600 hds. at prices ranging from 3 to 5 1/2 cts. per lb. Molasses was in good demand at 16a17c. The stock of Flour large, with a slight decline in prices.

At Mobile in the week ending 26th ult. Cotton had experienced a decline of a 1/2 cts. on all descriptions below fair. The sales of the week amounted to 6000 bales, leaving a stock on hand 64,684 bales.—Flour \$7a7 1/2; Corn 60a62 1/2; Oats 65; Lard 6a6 3/8; Pork, Mess \$9.50a10; Rice 4a4 1/2; Exchange on New York 14 per cent. prem, Philadelphia do 10 do. Baltimore 10 do.

At Charleston, 20th inst. the market for upland Cotton had been rather quiet and previous quotations were with difficulty maintained—holders did in some instances, yield to a fractional reduction, Rice 24 1/2 cts. per lb.

New York Market, Feb. 5.—Genesee Flour is held by the large dealers at \$6.37, which we think is the proper quotation, though some sales have been made at \$6.31. 250 bbls Ohio north about sold at \$6.12a18, but this is rather a high quotation, as there are sellers of handsome flat hoops at \$6.12. Sales 100 bbls. Georgetown Flour for exportation, at \$6. For New Orleans Flour there are buyers of the best lots at \$6, and sellers of those not the best at that price, we quote \$6a6 1/2. The sales of Cotton are 800 bales at steady prices. Exchanges including certificates and Checks.—Boston 1-8a1, Philadelphia 61, Baltimore 24a3, Washington 3a31, Richmond 7a84 Petersburg do Norfolk do Raleigh 6, Wilmington do Charleston 2, Interior, S. C. 24a3, Augusta 4, Macon 15, Savannah 2a3, Mobile 14, Interior Ala. 15, New Orleans 8a8 1/2 St. Louis 17a18, Louisville 10a11, Cincinnati 14, Nashville 16, Bills on London 7a84 do France 5f28a30.

AGRICULTURAL IMPLEMENTS.

FARMERS REPOSITORY IN PRATT STREET.

The subscriber has in store his usual extensive assortment of AGRICULTURAL IMPLEMENTS; his stock of Ploughs and Plough Castings on hand, is probably the most extensive of any in Baltimore, and will be sold at very reduced prices for cash. Also, my Horse-powers, Threshing Machines, Straw Cutters, and every implement in my store are offered to the public on the same reduced terms.—Wholesale dealers will find it to their advantage to give me a call.

JOHNATHAN S. EASTMAN.

GARDEN SEED.

J. S. EASTMAN (Pratt street) has received his SEEDS. My whole stock of Seeds is now on hand from Mr. Landreth are of last year's growth, and can be depended upon as superior Seeds and true to their kind.—Also, in store, Oranges, Grapes, and Herd's Seed of good quality and at low prices.

BERKSHIRE PIGS.

The subscriber will receive orders for his fall litters of pure Berkshire Pigs bred from stock selected of C. N. Bement & John Lossing, Esqs. of Albany, N.Y. and importations from England.—Price, same as at Albany for pure Berkshires \$30 per pair; for Irish Grazers \$30 per pair, with the addition of \$1 for Cages, deliverable in or shipped at the port of Baltimore.

Address, post paid.

JOHN P. E. STANLEY.

Or apply at No. 50 S. Calvert street, Baltimore

MURRAY'S CORN & COB CRUSHERS.

The subscriber, who exhibited the Corn and Cob Crusher and Grinder at the Agricultural meeting at Govanstown, continues to build them, and has so improved them that persons who have not got horse power, can use them by hand power, with sufficient facility to supply the wants of small farms, and with one or two horse power can do more work, he believes, than any other machine for the same purpose that will require double the power. Having made a new set of patterns, and put such improvements as may have suggested themselves for the benefit of the machine, he has been obliged to increase the price to \$40, which includes an extra set of grinders.

He is also prepared to build portable HORSE POWERS of the very simplest and best construction, in every respect best suited for farmers; in place of using cast iron wheels, he uses leather olts, which the farmer can keep in repair himself. It is now well tested that belts are as well adapted to driving machinery as cast iron wheels.

Orders for the above machines can be left with Mr. SAMUEL SANDS, at the office of the American Farmer, or with the subscriber, WM. MURRAY, Powhatan Factory, Baltimore county.

GREAT IMPROVEMENTS.

MUSSEY'S REAPING MACHINE—CORN-SHELLER AND HUSKER—CORN & COB CRUSHER & GRINDER.

A great improvement has been made by the subscriber in the Reaping Machine since last year; the cog-wheel machines now making for 1842, will combine all the material advantages of both the cog wheel and cam wheel machines as made last year. By means of these improvements, the machine is made capable of cutting 6 feet in width with the same facility that it cut 5 feet last year—their durability is also greatly increased. The cam wheel and lever machines will also be made for those who choose them; they are also much improved. An experimental machine of each kind was prepared and used in the last harvest, by which the improvements now offered were fully tested. Both machines are warranted bona fide—price \$150.

The Corn Sheller and Husker is warranted to shell 100 bushels per hour with proper management and moderate exertion. A gentleman of the highest respectability in Washington county, Md. assures me that he shelled 590 bushels in 24 hours with one of these machines. It is also warranted to shell and husk at the same operation as fast as two men can put in the corn by handfuls of 6 ears at a time—when the corn is poured from a basket, the husk or chuck will in some degree impede its entrance; it is for this reason that husked corn will shell so much more rapidly. This machine has recently been much improved by the subscriber. It can be driven by any ordinary horse-power—price \$30.

The Corn and Cob Crusher and Grinder is a late improvement by the subscriber, a new arrangement—in the first hour which it ever run, which was on the 22d inst. it crushed and ground from corn in the ear 8 1-2 bushels—the gentleman on whose place it was tried, a few miles from the city, expresses his satisfaction with the quality of its work. The mill is strong and simple, and compactly arranged, occupying about 3 feet by 2 on the floor, and containing a convenient meal box directly below the grinders. It can be driven by any horse power suited for thrashing wheat—price \$40 including an extra set of grinders, which can be put in by any intelligent farmer.

Orders may be directed to me in Baltimore by those who wish to procure the above machines.

Those who design getting Reaping Machines for the harvest of 1842, will please give me early notice, designating the kind they choose, whether the cog wheel and crank, or the cam wheel and lever. To those who do not make the selection themselves I shall invariably send those which I have the most confidence in myself, without regard to any difference in first cost.

In expressing my thanks to farmers and others for their very liberal patronage thus far bestowed upon me, I can assure them that no exertion shall be wanting on my part to render the machines now offered to them as perfect as possible, and well suited to the purpose for which they are designed, for which the experience I have had may perhaps be some guarantee.

Baltimore, Oct. 23, 1841.

OBEDE HUSSEY.

MARTINEAU'S IRON HORSE-POWER.

The above cut represents this horse-power, for which the subscriber is proprietor of the patent right for Maryland, Delaware, and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order at the shortest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment. A. B. CHENOWETH, corner of Front & Ploughman sts. near Baltimore st. Bridge, or No. 30, Pratt street. Baltimore, Mar 31, 1841.

THE LIME KILNS.

The subscriber, in order to meet the increasing demand for Lime for agricultural purposes, has established Kilns for burning the same on the Rock Point farm, belonging to the Messrs. Lancaster in Charles county, Md. where he is ready to supply all demands for this section of the state, and the waters of the Potomac, on accommodating terms. Orders directed to him at Millow Hill Post Office, Md. will meet prompt attention.

WM. M. DOWNING.

A TREATISE ON BEE MANAGEMENT.

A valuable little work by Mr. A. Beck, editor of the Western Farmer & Gardener. Price 25 cts. For sale at the office of the American Farmer.

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500 BARRELS OF POUDETTE.

For sale at the office of the NEW-YORK POUDETTE company, 130 Nassau street, New York—Price two dollars per barrel, containing FOUR bushels heaped measure each, delivered on board of any vessel in this city.

Present prices of shares in this company, one hundred and ten dollars each entitling the holder to one hundred bushels of poudettes annually, during the continuance of the charter, 17 years from next March; which at present prices will be equivalent to a return of the capital and over five per cent annual interest every three years. Those who took shares in the winter of 1837—5 have received three hundred bushels each share; and are entitled to receive three hundred more. Those who desire shares will do well to apply soon, as they will not be sold at that price after 1st. May next—address the agent, D. K. MINOR, 120 Nassau St. up stairs.

New York, January 26th 1842.—Feb. 2
The subscriber having been frequently applied to for the purpose of obtaining small quantities of Poudrette, respectfully informs those wishing to give it a trial, that he intends on the 14th of Feb. inst. ordering on such quantity from the above company, as he may receive a demand for in addition to a supply for his own use. The price deliverable in Baltimore, will be \$3 per bbl. including freight, insurance and incidentals, but no order will be attended to without accompanied by the cash in Baltimore bankable money, or its equivalent, without respect to persons, as the agent delivers none without the money in advance.
S. SANDS, office American Farmer.

AN IMPORTED CHINA SOW,

Now more than 2 months in pig by a pure Berkshire boar, for sale at \$25, deliverable in this city. She was imported in the U. S. ship John Adams, and is near 2 years old. Any one wanting to obtain the breed would do well to embrace the present opportunity, as there is not another pure blood of the breed, that I am aware of, on sale in the state.

Also, a half-CHESTER and half-BERKSHIRE SOW, also in pig by the above-mentioned boar—price \$25.
WHITE TURKIES—A few of the pure white Turkeys, which have been so much admired, for sale.

Also, a number of Durham, Devon, and crosses therefrom, heifers, cows and bulls, different ages, low for the times.
Also, Dishley or Bakewell SHEEP, ewes and rams—and imported JACKS.
S. SANDS.

CATALOGUE OF VERY CHOICE SORTS OF PEACH TREES, for sale—raised on the farm of Lloyd N. Rogers: selected with much care, from a great many varieties, and ripening in succession as follows:

FREE-STONES.

No. 74.—Early Anne,	Ripe July 20th to 25th
No. 76.—Baltimore Beauty,	" Aug. 5th to 10th
No. 70.—Canary,	" Aug. 10th to 15th
No. 78.—Red Magdalen,	" Aug. 18th to 20th
No. 58.—Lady Washington,	" Aug. 22d to 25th
No. 73.—Snowball, or White Magdalen,	" Aug. 25th to 30th
No. 29.—Oldmixon Clear,	" Aug. 25th to 30th
No. 38.—Troth's Early Red,	" Sept. 1st to 5th
No. 41.—Belgarde, or Gallande,	" Sept. 8th to 12th
No. 4.—Soft Heath,	" Sept. 12th to 18th
No. 62.—Red-cheek'd Malagatane,	" Sept. 12th to 15th
No. 40.—Belle de Vitry,	" Sept. 15th to 18th
No. 82.—Superb open-stone,	" Sept. 15th to 18th
No. 86.—Orange Free,	" Sept. 18th to 25th
No. 94.—Red Jacket,	" Sept. 25th to 28th
No. 95.—Latest good-free,	" Oct. 1st to 4th

CLANG-STONES, OR PAVIES.

No. 26.—Paisan,	Ripe Aug. 18th to 25th
No. 6.—Early Newington,	" Aug. 20th to 25th
No. 72.—Old Newington,	" Sept. 10th to 15th
No. 84.—Orange Cling,	" Sept. 15th to 20th
No. 17.—Kennedy's Caroline,	" Sept. 18th to 23d
No. 21.—Goldborough,	" Sept. 18th to 25th
No. 100.—Washington,	" Sept. 20th to 25th
No. 87.—Pavia Admirable,	" Sept. 25th to 30th
No. 90.—Red Rover,	" Oct. 1st to 10th
No. 15.—Last of the Mohicans,	" Oct. 5th to 15th

The Prices of the above are \$15 per hundred, where 500 or more are purchased—\$18 per hundred, for any less number, and not under one hundred—and 20 cents a piece for any smaller number.

These Trees are budded near the ground, and are raised in high, dry land, not rich,—one year old from the bud—perfectly healthy,—and will be apt to flourish in most situations.

Persons ordering trees may feel assured of receiving them true to their names, and times of ripening, according to the Catalogue.

The usual charge made for packing in mats, where the distance they are to be sent may render that necessary. Application to be made to
JOHN SHERIEF, Manager,
At Druid Hill Farm, near Baltimore.

Also will be for Sale next Autumn, a large number of PEAR TREES, of the choicest sorts of fruit, principally selected from the new Belgian varieties, and obtained from undoubted sources. Persons wishing to have of these will address the proprietor through the post office.
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LIME—LIME.

The subscribers are prepared to furnish any quantity of Oyster Shell or Blaine Lime, of a very superior quality at short notice at their Kilns at Spring Garden, near the foot of Rutaw street Baltimore, and upon as good terms as can be had at any other establishment in the State.

They invite the attention of farmers and those interested in the use of the article, and would be pleased to communicate any information either verbally or by letter. The Kilns being situated immediately upon the water, vessels can be loaded very expeditiously.
J. D. Wood, residing in payment at market price.
E. J. COOPER.

AGRICULTURAL MACHINERY.

Manufactured and for sale by A. G. & N. U. MOTT, South east corner of Ensor and Forest sts. near the Bel-air market, Old Town, Baltimore.

Being the only agents for this state, are still manufacturing WILEY'S PATENT DOUBLE POINTED COMPOSITION CAPT PLOUGH, which was so highly approved of at the recent Fair at Ellicott's Mills, and to which was awarded the palm of excellence at the Govanstown meeting over the \$100 Premium Plough, Proudy's of Philadelphia, and Davis' of Baltimore, and which took the premium for several years at the Chester Co. Pa. fair—This plough is so constructed as to turn either end of the point when one wears dull—it is made of composition metal, warranted to stand stony or rocky land as well as steel wrought shares—in the wear of the mould board there is a piece of casting screwed on; by renewing this piece of metal, at the small expense of 25 or 50 cts. the mould board or plough will last as long as a half dozen of the ordinary ploughs. They are the most economical plough in use—We are today numbers of the most eminent farmers in the state that they save the expense of \$10 a year in each plough. Every farmer who has an eye to his own interest will do well by calling and examining for himself. We always keep on hand a supply of Ploughs and composition Castings—Price of a 1-horse Plough \$5; for 2 or more horses, \$10.

We also make to order other Ploughs of various kinds. MOTT'S IMPROVED LARGE WHEAT FAN, which was so highly approved of at the recent Fair at Ellicott's Mills and at Govanstown, as good an article as there is in this country—prices from \$25 to \$255.

A STRAW, HAY AND STALK CUTTER, With 20 knives attached, will cut 3 tons of straw per day by horse power, and one half by manual power. Price \$35.

A CORN SHELLER that will shell as fast as two men will throw in, and leave scarcely a grain on the cob nor break a cob, by manual power; price \$17.

CULTIVATORS with patent teeth, one of the best articles for the purpose in use, for cotton, corn and tobacco price \$4, extra set of teeth 1.

HARROWS of 3 kinds, from 7 to \$12.
GRAIN CRADLES of the best kind, \$3.75.
HARVEST TOOLS, &c.

Thankful for past favors we shall endeavor to merit a continuance of the same.
ja 26 if

"PATENT" CONVOLUTED STEAM BOILER.

The undersigned, the assignee of the newly invented "Patent Convoluted Steam Boiler," solicits the attention of the public generally, but more particularly of the farmers throughout the Southern countries, to the advantages of this invention. By means of a small boiler, measuring about 2½ feet in length and 1½ feet in breadth, three or four hundred gallons of water may be kept at the boiling point for two hours with scarcely four cubic feet of wood. The room saved is about four-fifths—the size of the patent boiler being hardly one-fifth the bulk of ordinary steam boilers—the expense saved has been calculated to be about five-sixths of the usual cost of fuel. Already has this invention been introduced into some of our public institutions, where its advantages have been fully tested and found to exceed the most sanguine expectations, as will be seen by the testimonials annexed. To farmers and producers this boiler is inestimable in furnishing a cheap and expeditious mode of steaming provender for cattle.

The subscriber is prepared to receive and fill orders for Patent Steam Boilers at the shortest notice, and flatters himself that the certificates which he is enabled to present from the persons who have already tested the value and saving of this invention, will induce farmers and others to make early application for so useful and economical an invention.

Place of manufacture corner of Fayette st. and McClellan's alley.
C. W. BENTLEY.

BALTIMORE, July 19, 1841.
Mr. D. L. PICKARD: I take pleasure in stating that your Boiler has given great satisfaction. By way of experiment, I boiled two hundred gallons of cold water in forty minutes—using only two small sticks of pine wood of 30 lbs. weight. Compared with the use of kettles of ordinary construction, this is a saving of three fourths in fuel and four sixths in time.

J. PASQUAY, Leather Dresser.
The undersigned has for some months been using one of D. L. Pickard's convoluted Boilers in his Morocco Factory, and for the saving of time and fuel it excels every thing of the kind he has seen in operation. From a general calculation he is satisfied, that it saves more than two thirds of the fuel. He has boiled two hundred gallons of water in forty minutes with two small sticks of pine wood, and with four sticks of wood, kept four hogheads of water boiling during six hours.

A. V. COZINE, Morocco Dresser,
Pearl street, near Lexington.
BALTIMORE, August 21, 1841.

MARYLAND PENITENTIARY.—Having purchased, for the use of this institution one of D. L. Pickard's patent convoluted Steam Generators, and having used the same during the space of four months in cooking for several hundred prisoners, I find it admirably suited to this purpose. The Boiler now in use is 20 inches in diameter and 22 inches in length, taking the place of five iron kettles, yet steams meats and vegetables and does all other boiling incident to the process of cooking in a better manner than by any other plan of which I have any knowledge, and at a much less cost of fuel. In the use of the iron kettles set in brick in the ordinary way, the consumption of wood was more than one half cord per day, but with the present arrangement, the consumption is only one twelfth of a cord in the same time, and cooking done more perfectly.
WILLIAM HOULTON, Warden.

I fully concur in the statement above.
LINDSEY STURGEON, As't

To D. L. PICKARD, Esq.—Dear Sir—Having made a careful experiment with your boiler in comparison with one of a different construction, both used for the same purpose, I have no hesitation in saying that it surpasses every boiler I have either seen or heard

of for its economy in time and fuel. And I take pleasure in recommending it to all persons who are daily using twenty-five gallons of water or upwards—they will save at least two thirds in fuel and one half time.

ISAAC DENSON, Superintendent,
of Balto. City and County Alms House.
August 28th 1841.

THE MEADOWS, Balt. Co. Jan. 14, 1841.
"As to the steamer it is all that I could desire, as to the saving of time, fuel, and room, it is not to be excelled; one hand beside attending to my "piggery" containing upwards of 32 store pigs and two "breeders" steams daily all the roots which said pigs consume, and from fifty to one hundred bushels of cut corn stalks, for my cattle daily; my vat for steaming fodder, i. e. cut corn stalks contains fifty bushels, (which by the by is inconveniently large) it will steam this quantity in about two hours, after ebullition takes place, a friend has seen it at work and is very much pleased with it.
Respectfully,
ja 19 ROBERT DORSEY, of Edward.

MOTT'S AGRICULTURAL FURNACE.

The subscriber respectfully informs his customers, and the public generally, that he has on hand, and intends constantly to keep a supply, of MOTT'S JUSTLY CELEBRATED AGRICULTURAL FURNACES, for cooking vegetables and grain for stock of all kinds. They vary in size from HALF a barrel to FOUR barrels, and are better adapted to the purpose for which they are intended than any other yet invented; obtained the premium of the American Institute, and have given satisfaction to every gentleman by whom they have been purchased. Col. C. N. BEMMNT, the distinguished agriculturist near Albany, New York, who has had one in use for some time, in a letter to the editor of the Cultivator, says:

"The one I purchased last fall, I continued to use during the winter, and have found no reason to alter the opinion then expressed; but on the contrary, I am more confirmed, and do not hesitate, without qualification, to recommend it, with the late improvements, as superior to any thing, for the purpose intended, which I have ever used, or which has fallen under my observation."

"Mr. Mott has lately sent me one of the capacity of two barrels, containing the improvements, which consist in casting "points of attachment" or gudgeons, on the rim or sides of the kettle, "as that with a crane or level" it may be raised out of the casing and the contents emptied out, and to facilitate which, a loop or eye is cast on the bottom of the kettle so that it can be done without burning the fingers. The flange also, has been extended beyond the edge of the casing, so that if water boil over it will not run down the flues and put out the fire."

These furnaces and boilers are portable and may be set up in any out-house, being from their compactness and construction perfectly safe. The furnaces are made of cast iron and peculiarly calculated to economise fuel.

The following are the prices for one of the capacity of a half barrel

do	do	do	One barrel	\$12.50
do	do	do	One and a half	20.00
do	do	do	Two barrels	24.00
do	do	do	Three do	28.00
do	do	do	Four do	48.00

A. WILLIAMS, Corner of Light & Pratt St. Balt. Md.
de 15

AGRICULTURAL MACHINERY.

Manufactured and for sale by ROBERT SINCLAIR Jr. & CO. No. 60 Light Street.

Goldborough's Cornsheller & Husking Machine—warranted to husk & shell 900 bus. of corn per day, or shell in strip'd state 1200 bushels \$35 00

Do. for manual power which performs at about half the rate as above \$5.00

Do. for Husking & Shelling Corn and Threshing Grain, all of which is done perfectly and with astonishing despatch, 60 00

Horse Powers adapted to the draft of 2 or more horses, made very simple and strong, 100x125

Spike Threshing Machines, warranted to be equal to any in this country, 50 to 75

Straw Carriers for separating straw from the grain when threshing, 20 to 25

Patent Hay and Tobacco Presses, very simply constructed and great power, 125

Knowles' patent Grain and Grass Cutting machines, 150

Vegetable Cutters, warranted to cut 100 bushels turnips, beets, &c. per day, 90

Grindstones, hung on friction rollers, 15

Centrifugal Disintegrators for spreading lime, ashes, &c. 30

Baldwin's patent Corn and Cob Crusher, 60

Cylindrical Straw Cutters for manual or horse power, a first rate article, 30x45x15

Fanning Mills, 25x30

25 sorts Ploughs, embracing the sub-soil, hill side, paring and every other useful variety, 5x15

Cultivators for Tobacco and Corn, made to expand and stationary, 5x6.50

Harrows, hinge, V shape, common drag and improved Eng. 7x25

Drill and sowing Machines, 12x35

Ox Yokes, Swingle Trees, Hoes, and every other variety of Agricultural Tool

GARDEN & FIELD SEEDS, embracing a very large and genuine assortment

Books on cultivation, and management of Stock TREES and PLANTS supplied at the shortest notice.

* Catalogues of the above supplied gratis, giving prices and description of each article for sale.
ja 29

SHERIFFALTY.
JOHN COULSON, of Baltimore county, is a candidate for the office of Sheriff at the ensuing election.
cc 27 18